NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee: Nevada Division of Wildlife

Permit: NV0020664

Project: Spring Creek Rearing Station

General: The State of Nevada, Department of Conservation and Natural Resources, Division of Wildlife (NDOW) operates a fish rearing station approximately 4 miles south of Baker, Nevada at 38° 55' 12" N. latitude, 114° 05' 39" W. longitude. The facility has been used for 50 years as a rearing station. NDOW raises the fish from the fry stage, 2 inches in length, to release stage, 8 inches in length. The rearing station receives water from two sources: Spring Creek Spring, approximately 75% of the inflow, and Snake Creek, approximately 25% of the inflow. Water is diverted into a header box, mixed and then flows through three runs, five lanes each, in series and then through two runs, two lanes each, before overflowing into a channel that empties into Snake Creek. Each concrete run can be cleaned independently by separate drains that flow to the first of two settling ponds. The first hypalon-lined pond has a capacity of approximately 130,000 gallons and is equipped with ½-hp aerator. The second hypalon-lined pond has a capacity of approximately 140,000 gallons and is designed to discharge into the channel downgradient of the flow through from the rearing runs. Snake Creek flows in an easterly direction to the town of Garrison, Utah, where the water is used for stock watering and irrigation. Excess water flows to the playa and evaporates. The only beneficial use of this water downgradient of the rearing station is agricultural.

Receiving Water Characteristics: The Spring Creek Rearing Station discharges to Snake Creek via a constructed channel. All flow in the channel is from the rearing station discharges or in response to meteoric events. During periods of low flow, all flow in Snake Creek is diverted through the rearing station. The applicable Snake Creek water quality standards, Nevada Administrative Code (NAC) 445A.179, and beneficial uses are those for Class C waters found at NAC 445A.126. Beneficial uses of a Class C water include drinking water supply, irrigation, livestock watering, aquatic life, propagation of wildlife and recreation.

Description of the Location of the Discharge: The two facility discharge outfalls are located in a constructed channel that flows to Snake Creek. Outfall 001 is the rearing station flow through discharge from lanes 18 and 19. Outfall 002 is the discharge pipe from the second hypalon-lined settling pond. The facility is located adjacent to Snake Creek.

Flow: The daily maximum flow from the two outfalls is 5.5 million gallons per day (MGD); the maximum 30-day average flow from these outfalls is 4.7 MGD. The daily maximum flow from Outfall 001, the flow through water, is 5.0 MGD; the maximum 30-day average flow from this outfall is 4.5 MGD. Due to evaporation from the two settling ponds, there is frequently no discharge from Outfall 002, the pipe from the second settling pond.

Quantities: See the Effluent Limitations Table for permitted quantities.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit authorizing the facility to discharge to the surface water of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Ely Daily Times** and the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of publication of the public notice. All comments must be received by 5:00 PM February 16, 2001. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Effluent Limitations:

TABLE I.1 - Effluent Limitations

PARAMETERS	**EFFLUENT DISCHARGE LIMITATIONS**		**MONITORING REQUIREMENTS**		
	30-Day Average	**Daily Maximum**	**Sample Location(s)**	**Measurement Frequency**	**Sample Type**
Flow	4.5 MGD	5.0 MGD	a, b	Monthly	Discrete
Flow	0.2 MGD	0.5 MGD	c	Monthly	Discrete
Total Phosphates	---	0.08 mg/L	a, d[1]	Quarterly	Discrete
BOD (5-day, 20°C)	---	5.00 mg/L	a, d[1]	Quarterly	Discrete
Total Suspended Solids	---	25.00 mg/L	a, d[1]	Quarterly	Discrete
Total Dissolved Solids (TDS)	TDS_d 1.33 TDS_a or 500 mg/L, whichever is less		a, d[1]	Quarterly	Discrete
pH	7.0 pH 8.3 S.U.		a, d[1]	Monthly	Discrete
Un-ionized Ammonia (NH_3-N)	0.02 mg/L		d[1]	Monthly	Calculate
Ammonia Nitrogen (NH_4-N)	Monitor and Report		d[1]	Monthly	Discrete
Temperature	T_d 20°C and T_d T_a + 2°C		a, d[1]	Monthly	Discrete
Dissolved Oxygen	6.0 mg/L		d[1]	Monthly	Discrete

Notes: (1) If there is or is expected to be a discharge from Outfall 002 during the quarter/month, the sampling/characterization of location "d" must be scheduled to coincide with the discharge.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance.

a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

b. The Permittee shall submit a report in accordance with permit condition I.B.1.c. within 14 days of a compliance date detailing compliance or noncompliance with that date.

c. The Permittee shall submit a revised O & M Manual within sixty (60) days of the effective date of this permit.

Special Conditions: None

Rationale for Permit Requirements: According to the existing permit monitoring requirements, Outfall 001, the flow through, and Outfall 002, the settling pond #2 discharge, must be discretely sampled. Since both outfalls discharge to one constructed channel and mix prior to entering Snake Creek, a sampling point within the constructed channel, ten (10) meters downgradient of Outfall 002, has been designated as the discharge compliance point.

Flow - The existing permit authorizes a discharge of 2.6 MGD, 30-day average, and 3.0 MGD, daily maximum, from Outfall 001 and 0.2 MGD, 30-day average, and 0.5 MGD, daily maximum, from Outfall 002. The Outfall 001 discharge is below the permitted volume, but if additional water were available due to greater than normal precipitation, well construction, etc., the increased flow-through would be beneficial to the fish rearing operations. Under current conditions, the discharge volume is not expected to approach the proposed permit limitations of 4.5 MGD, 30-day average, and 5.0 MGD, daily maximum.
The discharge from Outfall 002 has averaged approximately 0.07 MGD. Due to evaporation from the two settling ponds, there is frequently no discharge from Outfall 002. No change to the Outfall 002 flow is proposed.

Total Phosphates - Per NAC 445A.126, the Class C water quality standards require that the total phosphates concentration must not exceed 1.0 mg/L. The limit of less than or equal to 0.08 mg/L as the daily maximum is the single value required to maintain existing higher quality in Snake Creek, per NAC 445A.179. The DMR records demonstrate that the average total phosphates concentration of the discharge is approximately 0.02 mg/L for each outfall. With quarterly monitoring, the 30-day average limitation has been eliminated for total phosphates, BOD and total suspended solids.

BOD (5-day, 20° C) - The limit of 5.00 mg/L as a daily maximum is the value established in the original permit and has been retained. The DMR records demonstrate that the average BOD_5 concentration of the discharge is approximately 0.74 mg/L from Outfall 001 and 0.79 mg/L from Outfall 002.

Total Suspended Solids - The Class C water quality standards, NAC 445A.126, do not include a total suspended solids (TSS) concentration standard. Per NAC 445A.179, the Snake Creek water quality standards specify a single value TSS concentration of less than or equal to 25 mg/L for beneficial uses. The DMR records demonstrate that the average TSS concentration of the discharge is approximately 2.95 mg/L from Outfall 001 and 3.62 mg/L from Outfall 002.

Total Dissolved Solids - Per NAC 445A.126, the Class C water quality standards require that the total dissolved solids concentration must not exceed 500 mg/L or one-third above that characteristic of natural conditions, whichever is less. The NAC 445A.179 water quality standard for beneficial uses is less than or equal to 500 mg/L. The DMR records demonstrate that both discharges have consistently met these permit limitations.

pH - Per NAC 445A.179, the Snake Creek water quality standards require that the pH range between 7.0 to 8.3 S.U. This range is more restrictive than the pH range for Class C waters. The DMR records demonstrate that the average pH of both discharges is approximately 8.0 S.U., within the proposed limitation range.

Un-ionized Ammonia and Ammonia Nitrogen - Per NAC 445A.126, the Class C water quality standards do not include un-ionized ammonia (NH_3-N) and ammonia nitrogen (NH_4-N) concentration standards. NAC 445A.179 contains an un-ionized ammonia single value standard of less than or equal to 0.02 mg/L. The DMR records demonstrate that both discharges have consistently met this permit limitation.

Temperature - Per NAC 445A.126, the Class C water quality standards require that the temperature not exceed 20° C for waters with trout and the allowable temperature change below the discharge is 3° C. NAC 445A.179 further restricts the temperature change of the discharge to 2° C. The DMR records demonstrate that both discharges have consistently met these permit limitations.

Dissolved Oxygen - Per NAC 445A.126, the Class C water quality standards require that the dissolved oxygen (DO) concentration be greater than or equal to 6.0 mg/L for waters with trout. NAC 445A.179 includes a June through October DO concentration of greater than or equal to 5.0 mg/L that has not been incorporated into the permit. The DMR records demonstrate that both discharges have consistently met this permit limitation.

Proposed Determination: The Division has made the tentative determination to reissue the proposed permit for a five-year period.

Prepared by: Bruce Holmgren
January 2001
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